Voluntary, private industry standards benefit consumers and manufacturers because they encourage manufacturer investment in technology and promote greater consumer acceptance of products. For example, consumers benefit because, rather than competing on the underlying technology, manufacturers may vigorously compete on price and product features. Consumers also benefit from the economies of scale that result in lower equipment costs. Moreover, by allowing private industry to set its own technical standard, the Commission may also achieve a greater degree of industry compliance with, and acceptance of, the final standard.

Private standards also benefit consumers because they ensure that technical innovation and marketplace demands play an integral role in standards development. As a result of the rigorous peer review and compromise that occurs in an industry standard-setting process, an industry standard will likely include the latest technological solutions available. Similarly, an industry standard will also reflect marketplace concerns because customers' needs are incorporated directly into the standards process through equipment purchaser participation and by the fact that those working to establish a standard will also be delivering the products and services to customers. Fortunately, such industry efforts are already underway. As noted previously in these comments, both CableLabs/MCNS and IEEE activities are focused on creating volume markets, multiple sources of supply and portability across systems. Accordingly, Motorola submits that the Commission should seek to encourage, but not require, standards in order to implement Section 629.

A. Congress Expressly Recognized the Important Role Of Industry Standards In Promoting Equipment Availability.

1. The Commission must comply with Congress' preference for industry standards.

The Act clearly articulates Congress' intent that industry-based standards should be used to promote equipment availability and that the Commission work closely with industry standards organizations. Section 629(a) prescribes that the Commission work "in consultation with appropriate industry standards-setting organizations" in adopting any commercial availability requirements.[32] Motorola submits that this language plainly indicates that Congress did not intend that the Commission move ahead of private industry efforts, and it certainly would not authorize the Commission to adopt standards over the objections of private industry groups.[33]

Moreover, the legislative history accompanying Section 629 emphasizes the importance of using industry standards organizations. In particular, the Conference Report notes that the Commission "should take cognizance of the current state of the marketplace and consider the *results* of private standards setting activities."[34] Accordingly, Congress clearly envisioned that

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[32] 47 U.S.C. § 549(a).

[33] It should be noted that the Commission's authority to adopt equipment standards under the Act's commercial availability provision is by no means clear. The plain language of Section 629 clearly does not give the Commission any new express authority to adopt equipment standards, and Congress specifically included a requirement to work with (not ahead of) industry standards bodies. In addition, to the extent it has authority to adopt equipment standards under the Act's cable equipment compatibility statutory section, the Commission is limited by the restrictions of the Eshoo amendment. See Telecommunications Act of 1996, § 301(f), *codified at,* 47 U.S.C. § 624A.

[34] Conference Report at 181 (emphasis added); *see also* 142 Cong. Rec. S700 (daily ed.

(Continued...)

industry organizations should take a lead role in developing any standards to promote compatibility and competition, and the Commission should not seek to contravene this framework by mandating equipment or performance standards ahead of such industry efforts.

Moreover, the Commission must not ignore Congress' clear preference for voluntary industry standards stated elsewhere in the Communications Act. Specifically, the "Eshoo amendment" to the 1996 Telecommunications Act modified the Act's existing provisions governing compatibility between televisions, video cassette recorders and cable systems. [35] Congress specifically found that such compatibility can be assured with "narrow technical standards that mandate a minimum degree of common design and operation[,]" leaving selection of "features, functions, protocols, and other product and service options. . . [to] open competition in the market."[36]

Both Section 624A and Section 629 of the Act seek to promote the greater availability of consumer devices used to receive MVPD programming and services. Indeed, Section 624A instructs the Commission to promulgate rules that promote the "commercial availability" of "converter boxes and [ ] remote control devices compatible with converter boxes" from cable

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(...Continued)
Feb. 1, 1996) (statement of Sen. Burns) (indicating that the Commission has no standard setting authority for interactive video equipment under the Act's commercial availability provision).

[35] Telecommunications Act of 1996, § 301(f). Section 301(f) amended Section 624A of the Communications Act, which sought to promote compatibility between cable operator facilities and certain features of television receivers and video cassette recorders, and to promote availability of compatible converter boxes and remote control devices.

[36] 47 U.S.C. § 544a (a)(4).

operators and retail sources.[37] Given the common objectives of these two provisions, the Commission cannot ignore Congress' clear mandate in Section 624A that the Commission take a narrow approach to setting standards and that the marketplace should dictate the development of equipment features.

In addition, the Eshoo amendment also was clearly intended to restrict the Commission's standard setting authority under Section 624A and to address issues related to establishment of a "decoder interface" standard.[38] Section 624A provides that the Commission must "maximize open competition in the marketplace" for all equipment features and functions in adopting regulations pursuant to this section.[39] In addition, Congress required that any standards or regulations adopted to ensure equipment compatibility under Section 624A must not affect features for other equipment, including "telecommunications interface equipment, home automation communications, and computer network services."[40] In sum, the Commission must heed Congress' concern that the Commission should adopt only limited compatibility standards and it should not attempt to affect features and functions of other consumer electronic equipment.

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37 *Id.* § 544a (c)(2)(C).

38 See 142 Cong. Rec. H1160 (daily ed. Feb. 1, 1996) (statement of Rep. Eshoo) (noting that Section 301(f) is intended to "keep[] the Government out of high-technology standards and prevents the FCC from setting standards for the computer and communications services of tomorrow" and "reign in the Commission's ongoing rulemaking on cable equipment compatibility").

39 47 U.S.C. § 544a (c)(1)(A).

40 *Id.* § 544a (c)(2)(D).

2. Voluntary standards activities already underway will promote equipment availability.

As the Commission recognizes, voluntary industry standards activities have begun in a number of areas that will lead to the greater availability of MVPD consumer equipment. For example, as noted earlier, two broad-based industry efforts to standardize essential cable modem requirements are currently underway. Using the expertise and experience of cable modem manufacturers, cable operators and computer equipment manufacturers, this effort seeks to develop a consensus standard for cable modems that will allow suppliers to compete on price and features, rather than the underlying technology.[41] As part of this effort, vendors and industry representatives are also seeking to develop and promote an industry standard for certain features and functions of digital cable set top boxes.[42] This type of activity will continue even in the absence of Commission action as markets and technologies continue to develop and customers seek standardization in certain contexts.

B. The Commission Has Long Relied Upon Industry Standards To Encourage Innovation and Promote Workable Technologies.

The Commission has demonstrated a strong preference for deferring to industry standard-setting bodies rather than adopting extensive standards on its own where it has authority to do so. In developing standards for cellular telephones, for example, the

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[41] *See, e.g, Cable Moves to* De Facto *Standard for Digital Set-Tops, Modems*, Communications Daily, Oct. 4, 1997, at 3; Christa Hardie, *Common Cable Modem Platform Gains*, Electronic News, Mar. 24, 1997, at 14.

[42] *See, e.g., Cable Decoder Truce Is Likely to Propel U.S. Digital Rollout*, Video Technology News, Oct. 21, 1996; *Cable Industry Issues Specifications For High-Speed Data Delivery*, PR Newswire, Dec. 11, 1996.

Commission explained that "[w]herever possible, detailed standards will be left to industry groups or other voluntary standards making bodies."[43] Indeed, in the context of setting standards for the cable television industry in 1990, the Commission similarly stated "[w]e believe that the best way to fashion effective technical standards is to involve the interested parties, including the cable industry and franchising authorities, by encouraging the completion of the ongoing inter-industry negotiations in this area."[44] The plain language of Section 629 and its underlying purpose provide no basis to depart from the Commission's long-standing policy to defer industry-standard setting organizations in the context of promoting availability of MVPD consumer equipment.

C. Security Features Should Be Addressed Through Industry Consensus Rather Than Commission Mandate.

The *Notice* asks how the Commission can promote commercial availability of devices while also meeting the Act's requirement that it does not jeopardize system security.[45] Noting that a potential solution to promote equipment availability of converter boxes is to require the "unbundling" of security functions, the Commission suggests that this solution, if necessary,

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[43] *An Inquiry Into the Use of the Bands 825-845 MHz and 870-890 MHz for Cellular Communications Systems*, 78 FCC 2d 984, 1003 (1980). Ultimately, cellular standards were based on "a draft of compatibility specifications from the Ad Hoc Engineering Committee and the Land Mobile Communications Section of the Electronic Industry Association's (EIA) Communications Division." *An Inquiry Into the Use of the Bands 825-845 MHz and 870-890 MHz for Cellular Communications Systems*, 86 FCC 2d 469, 508 (1981), *recon.*, 89 FCC 2d 58 (1982).

[44] *Competition, Rate Deregulation and the Commission's Policies Relating to the Provision of Cable Television Service*, 5 FCC Rcd 4962, 5058 (1990).

[45] *Notice*, ¶ 33.

might preferably be accomplished by adopting a conduct or performance rule that mandates the degree of separation and allowing industry to determine the necessary interface standards.[46] In the alternative, the Commission suggests that it could "extrapolate" from any standard that may be developed and approved in the cable equipment compatibility docket, such as a variant of the decoder interface connector.[47]

Theft of video programming services is a significant problem that poses an economic threat to an operator and imposes unfair burdens on those customers who lawfully pay for the operator's services.[48] In the context of cable television service, operators typically protect against signal theft by scrambling or encrypting their signal and providing a device to an authorized subscriber that permits the subscriber to receive and decode the transmitted signal. As the Commission recognizes, in many cases this security or conditional access function is provided in a device that may also provide other functions, such as tuning or display. In Motorola's view, it was not the intention of Congress nor is it in the public interest for the government to interject itself into the design of various conditional access or security options demanded by operators. Operators place their investment at risk, and thus, as recognized by Congress, have the right to decide what conditional access and security products to deploy.

The Act clearly mandates that the Commission not prescribe regulations that will impair an operator's ability to maintain the integrity of its system. In particular, the Act states

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46 *Id.*, ¶ 73.

47 *Id.*, ¶ 74.

48 *See* Mark Robichaux, *Cable Pirates Sought Plunder But Blundered Into a Major FBI Sting*, Wall Street Journal, May 12, 1997, at A-1.

that any regulations shall not "jeopardize security" or "impede the legal rights of a provider . . . to prevent theft of service."[49] Any attempt to mandate a particular security solution or impose a standard would expressly contravene this limitation because it would remove an operator's ability to control security in the manner best suited for its particular system or the type of conditional access method. Further, mandating a particular security solution would increase the price of equipment to consumers by adding costly new features and interfaces and requiring modification of existing equipment. Nowhere in the Act does Congress indicate that consumer choice should be promoted by increasing consumer costs. Instead, the Commission should promote marketplace development of various conditional access solutions. Real competition means that operators have multiple solutions from which to choose, not just multiple suppliers of one solution.

The Commission must recognize that manufacturers and MVPD operators may wish to provide system security through a variety of technical solutions. For example, conditional access features may be offered through a stand-alone device that only provides security, "smart card" technology, or as a function that is included with other equipment features. Rather than mandating a particular solution, the Commission should leave this choice up to the marketplace in order to protect the investment of MVPD operators and the interests of consumers. By allowing these choices to be driven by consumer demand and technical innovation, the Commission can best ensure that it will not unnecessarily raise the cost of equipment or foreclose innovate solutions inherent in the selection of a particular security "solution."

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[49] 47 U.S.C. § 549(b).

V. PROTECTION OF INTELLECTUAL PROPERTY RIGHTS IS REQUIRED BY LAW AND NECESSARY TO PROMOTE INNOVATION.

As the Commission recognized in the *Notice*, adoption of a rule that imposes any unbundling or standardization obligations on equipment manufacturers raises complex intellectual property issues. An unregulated equipment manufacturer's right to protect its patented and proprietary technology should not be compromised by the FCC. Moreover, in the context of Section 629, the Commission lacks explicit statutory authority to impose regulations which directly impact an equipment manufacturer's proprietary rights. In general, the FCC has only limited authority to regulate equipment manufacturers and has imposed restrictions on manufacturers only pursuant to specific grants of statutory authority. Recognizing these limits to the Commission's authority and the importance of protecting intellectual property rights, the Commission should not adopt rules in this proceeding which would impinge on a manufacturer's ability to develop and protect its technology.

In general, the technologies addressed in the *Notice* are subject to various intellectual property protections under federal and state law which protect an owner's exclusive right to prevent the unauthorized use or disclosure of the protected property. Intellectual property is shielded by federal patent and copyright statutes, which flow from an explicit provision in the United States Constitution,[50] and by state statutes and common law principles that protect certain information as trade secrets. For example, federal patent laws afford manufacturers

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[50] U.S. Const. art. I, § 8, cl. 8 provides that Congress shall "promote the Progress of Science and useful Arts, by securing for limited Times to Authors and Inventors the exclusive Right to their respective Writings and Discoveries."

exclusive exclusionary rights for particular designs, inventions or processes.[51] In addition, a manufacturer may obtain protection for certain rights under federal copyright laws, which generally extend to protect certain creative works, including, in some cases, computer programs.[52] Certain specific federal statutes extend additional protections to particular types of manufactured goods, such as the Semiconductor Chip Protection Act.[53] Finally, certain types of trade secrets are protected by various state statutes[54] and under the common law.[55] While the scope of protection afforded by each area of law is unique, these laws all have the common goal of seeking to provide legal protection for the creative abilities of individuals as well as fostering innovation and the development of ideas.

A. The Protection Of Intellectual Property Rights Is Necessary To Promote Innovation.

The Commission has previously determined that the protection of intellectual property rights is necessary to promote innovation. For example, the Commission recently considered the issue of proprietary commercial information in the context of the telephone network

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51 *See* 35 U.S.C. § 1 et seq.

52 *See* 17 U.S.C. § 101 et seq.

53 *See Id.* § 901 et seq.

54 *See, e.g.*, N.Y. Penal Law Ann. §§ 155.00, 155.30, 165.07 (McKinney 1987) (criminalizing misappropriation or unauthorized copying of trade secrets); VA Code Ann. §§ 59.1-336 *et seq.* (Michie 1992) (allowing for injunctive and monetary relief where a trade secret has been misappropriated).

55 *See, e.g.*, *Ruckelshaus v. Monsanto Co.*, 467 U.S. 986, 1002, 1004 & n.9 (1984) (recognizing that a trade secret is a property-like right subject to protections afforded to other property interests, including the Takings Clause of the Fifth Amendment).

disclosure rules, determining that third party equipment manufacturers' intellectual property rights ought to be afforded substantial protections. The Commission determined that "requiring disclosure to the public of competitively sensitive, proprietary, or trade secret information without allowing for the possible use of nondisclosure agreements . . . . would not be 'reasonable'" and would have "significant implications with respect to . . . the development of competition and innovative network improvements."[56] In another context, in declining to require licensing of a patented technology, the Commission recognized that the statutory scheme protecting patented technology "provides incentives for efficient, socially beneficial investment in new technology."[57] These same principles, if applied to the MVPD context, lead to the conclusion that requiring equipment manufacturers to disclose trade secrets or to license their technology to all competitors would leave manufacturers little incentive to develop innovative equipment and services.

Moreover, compulsory licensing of technology is unnecessary given the licensing requirements commonly adopted by industry standards organizations. Under such requirements, participants in accredited standard bodies such as ANSI must agree to make all essential intellectual property available to others on reasonable and non-discriminatory terms. Manufacturers of telecommunications equipment in a range of different contexts have worked

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[56] *Interconnection Second Report and Order,* FCC 96-333, at ¶ 255 (CC Docket No. 96-98) (rel. Aug. 8, 1996). Congress has required protection of intellectual property rights in another telecommunications context, providing that LECs must protect "the proprietary information submitted for procurement decisions from release not specifically authorized by the owner of such information." 47 U.S.C. § 273(e)(5).

[57] *See In the Matter of Inquiry into the Scrambling of Satellite Television Signals and Access to Those Signals by Owners of Home Satellite Dish Antennas*, 2 FCC Rcd 1669, 1675 (1987).

together to develop industry standards and to ensure interoperability between different products. Therefore, as industry standards are developed, the Commission need not take any action with respect to a manufacturer's intellectual property rights because these rights will have already been addressed through industry processes.

B. The Commission Lacks Statutory Authority To Infringe Upon An Equipment Manufacturer's Intellectual Property Rights in This Context.

The FCC may impose restrictions on equipment manufacturers, or on any entity, only where such restrictions are authorized by underlying statutory authority.[58] In the context of commercial availability, the Commission does not have such explicit statutory authority to infringe on an equipment manufacturer's intellectual property rights. As an initial matter, Section 629 does not provide any new authority to affect a manufacturer's intellectual property rights. In particular, Congress specifically provided that "[n]othing in this section shall be construed as expanding or limiting any authority that the Commission may have under law in effect before February 8, 1996."[59] Moreover, nothing in the Communications Act provides the Commission with authority to adopt a compulsory licensing requirement or other mechanism that lessens or impairs an equipment manufacturer's intellectual property rights.

Further, the Commission has only limited and specific regulatory authority over third-party equipment manufacturers' communications equipment. In general, this authority only

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[58] It is well-settled that government agencies may exercise authority only to the extent it has been delegated by Congress. *See, e.g., Lyng v. Payne*, 476 U.S. 926, 937 (1986).

[59] 47 U.S.C. § 549(f).

extends to the authority to regulate the level of electromagnetic interference generated by electronic equipment.[60] While the Act does authorize the Commission to regulate equipment manufacturers in several other respects, this authority is specifically defined by Congress and is clearly limited in scope and purpose. For example, Congress specifically authorized the Commission to establish certain manufacturing standards and labeling requirements for television sets and VCRs,[61] and to ensure compatibility between cable television systems, television sets and VCRs.[62]

Given the clear grant of authority to regulate manufacturers in other limited contexts, Congress surely would have been more explicit had it decided to grant the Commission authority to otherwise impair a manufacturer's intellectual property rights. Indeed, Section 629 makes no mention of affecting third party manufacturers' rights to their proprietary technology, and the Commission should not attempt to read such an authorization into the Act. Specifically, the Act directs the Commission to "assure the commercial availability" of

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60 *See, e.g.,* 47 U.S.C. §§ 302a, 303(e) and 303(f).

61 *See* 47 U.S.C. § 303(s) and (u) (setting standards for television sets), and § 544a (requiring standards to ensure limited interoperability of television receivers, video cassette recorders and cable systems).

62 47 U.S.C. § 544a (b)(1). This Section directs the Commission to assure compatibility between consumer electronics equipment and cable systems in order to achieve the specific goal of ensuring that "cable subscribers will be able to enjoy the full benefit of both the programming available on cable systems and the functions available on their televisions and video cassette recorders." Congress further provided illustrations of what it meant by "special functions" -- the ability to receive two simultaneous signals in order to view one program and videotape a second, and to utilize a "picture-in-picture" feature. *See also Implementation of Section 17 of the Cable Television Consumer Protection and Competition Act of 1992*, 9 FCC Rcd 1981, 1983 (1994), *erratum*, 10 FCC Rcd 714 (1994), *modified*, 11 FCC Rcd 4121 (1996); 47 C.F.R. §§ 15.19(d), 15.118 and 76.630.

devices, but does not go as far as permitting incursions into a manufacturer's proprietary rights.[63] It seems illogical to conclude that the Commission needs explicit authority to mandate equipment labeling on the one hand, but can require the compulsory licensing of federally protected intellectual property under the general authority to promote commercial availability. Because Congress clearly did not provide such authority in Section 629, the Commission has no legal basis to force a manufacturer to license any patent or copyright, or otherwise impair the legally protected value of this right.

The Commission has previously required equipment manufacturers to license proprietary technology only as a precondition to adoption of an official industry standard which incorporates the manufacturer's protected technology and only when authorized by specific congressional direction to adopt a technical standard or requirement.[64] In adopting a standard for Advanced Television (ATV) transmission equipment, and for AM radio transmission equipment, the FCC held that establishment of an industry standard was conditioned on fact that the underlying technology would be licensed on fair and reasonable terms by the owners of proprietary technology.[65] In the case of ATV, members of a

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63 47 U.S.C. § 549(a).

64 In establishing both the AM radio and the ATV standards, the Commission was acting pursuant to specific, explicit Congressional authorization. *See* 47 U.S.C. § 336 (establishing authority to adopt requirements for digital television broadcasting); *see also* Telecommunications Authorization Act of 1992, Pub. L. No. 102-538, § 214 (instructing the FCC to adopt a single AM radio transmitting equipment standard, after conducting rulemaking proceeding).

65 *See In the Matter of Advanced Television Systems and Their Impact Upon the Existing Television Broadcast Service*, 11 FCC Rcd 17771, 17794 (1996) (Fourth Report and Order); *In the Matter of Amendment of the Commission's Rules to Establish a Single AM Radio Stereophonic Transmitting Equipment Standard*, 8 FCC Rcd 8216 (1993) ("*AM Radio*

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consortium of manufacturers participating in a lengthy process to develop a technical standard for ATV had all pledged to make their patented technology available for licensing on reasonable and nondiscriminatory terms and conditions.[66] Similarly, in the AM radio context, where the Commission essentially approved the *de facto* standard already adopted by the industry, Motorola had voluntarily committed to make available its proprietary technology incorporated into the standard on fair and reasonable terms.[67] In neither of these instances, then, did the Commission require an equipment manufacturer to license proprietary technology unwillingly.

VI. CONCLUSION.

The Commission can meet its obligation under the Act and can best promote commercial availability through the establishment of a consumer "right to attach," with limitations, rather than adopting intrusive regulations that would actually impair competition, consumer choice, and investment in new technology. A right to attach can create competitive markets where consumer demand exists and solutions are technically feasible. Further, while important differences remain between the telephone and MVPD market, a right to attach can

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(...Continued)
Order").

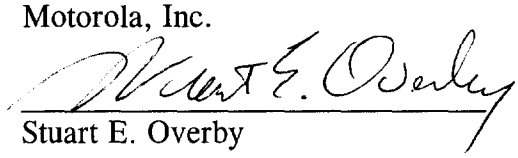
[66] *In the Matter of Advanced Television Systems and Their Impact Upon the Existing Television Broadcast Service*, 7 FCC Rcd 3340, 3358 (1992) (Second Report and Order).

[67] *AM Radio Order,* 8 FCC Rcd at 8218-8219.

bring the MVPD market closer to delivering interoperability and widespread availability as markets and technical solutions develop.

Respectfully submitted,

Motorola, Inc.



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